

Frequently Asked Questions: Area Codes

General

1. Area Codes: Why are they needed and what is their function?

The area code is a necessary part of routing calls to their proper destination. When the area code is combined with the second three digits of the telephone number (called the NXX code or Central Office code), a geographic address is formed that is used to route calls through the public switched telephone network. The first six digits tell the call generally where to go, and the final four digits identify the specific individual customer. For example, the telephone number of the North Carolina Utilities Commission is 919-733-4249. 919 is the area code, 733 is the NXX code or Central Office code, and 4249 is the line number identifying the specific customer receiving the call. North Carolina currently has six area codes assigned to specific geographic areas of the state.

2. What is the North American Numbering Plan?

The North American Numbering Plan, or NANP, is the common telephone numbering plan shared by the United States, Canada, and most of the Caribbean. It is characterized by a ten-digit dialing scheme where callers dial the area code, the NXX code, and the individual line number. People in all NANP member countries can call each other using this dialing scheme, without the need for dialing a country code or any other special dialing patterns.

3. What is area code exhaustion?

Area code exhaustion occurs when nearly all of the NXX codes in a given area code have been assigned to telephone companies. This does not mean that all line numbers within the NXX codes have been assigned to customers. Typically there are 792 NXX codes available for assignment to telephone companies in an area code. Each NXX code has approximately 10,000 line numbers available for assignment to individual customers. An area code is exhausted when nearly all of the NXX codes have been assigned to telephone companies, even if—as noted above—individual customer numbers in the NXX codes are still available for assignment.

4. Why do companies have to have the NXX codes assigned to them?

The combination of the area code and the NXX code is used to route calls through the public switched telephone network in the North American Numbering Plan. Some companies also use the NXX code for billing purposes. NXX codes are associated with particular geographic areas, or rate centers, in an area code. Telephone companies base charges for calls on the distance between the rate

center where a call originates and the rate center where the call terminates. These companies must obtain an NXX code in each of the identified geographic areas or rate centers in a particular area where they wish to provide service. In the past, local telephone service in any given area was provided by one monopoly carrier, such as BellSouth, Carolina Telephone, or GTE, and the requirement that the telephone company obtain an NXX code for each rate center in an area where it provided service did not strain the supply of NXX codes. Now, however, with the advent of competition in the local telephone service market, there can be several telephone companies providing service in a given area, and each one must obtain an NXX code for each rate center in that area. This change has caused a shortage in the supply of NXX codes.

5. What happens when an area code has been exhausted?

When almost all of the NXX codes in an area code are assigned to telephone companies, a new area code must be implemented. New area codes usually are implemented in one of two ways. First, they can be implemented through a geographic split, in which the geographic area using an existing area code is split into two parts, and roughly half of the telephone customers continue to be served through the existing area code and half must change to a new area code. Second, new area codes can be implemented through an area code overlay, in which the new area code covers the same geographic area as an existing code, but new customers in that area will be assigned to the new, or overlaid, area code.

6. Who is responsible for choosing how a new area code will be introduced?

The Federal Communications Commission (FCC) has exclusive jurisdiction over the North American Numbering Plan in the United States, but the FCC has delegated authority to state regulatory commissions such as the North Carolina Utilities Commission to resolve matters involving the implementation of new area codes, subject to certain very specific federal regulations.

7. Can there be a new area code just for a particular technology or type of telecommunications service, such as an area code just for wireless telephones?

The FCC has prohibited overlays that would segregate particular types of services or technologies into a separate area code. In other words, there cannot be an area code designated only for cellular or paging customers. The FCC concluded that an overlay segregating particular telecommunications services or particular types of telecommunications technologies in separate area codes would discriminate against the segregated carriers and would impede competition.

8. Why are there suddenly so many new area codes?

There are several reasons. The introduction of new services based on new technologies has increased the demand for telephone numbers, which in turn increases the demand for NXX codes. The introduction of competition into the telecommunications market has also increased the demand for NXX codes, because when new service providers enter the market, they need--and under the law are entitled to--NXX codes in order to give numbers to customers and provide them service. **The primary problem, however, is that there are inherent inefficiencies in the assignment of numbers because the public switched telephone network was not originally designed for a competitive market.** The requirement that NXX codes, each of which contain 10,000 individual line numbers, be assigned for every rate center in an area where a telephone company offers service, causes a severe shortage of NXX codes. This makes implementation of a new area code necessary, even though there may still be line numbers available for assignment to customers. Various telecommunications industry groups and regulators at the state and federal levels are working to address these inefficiencies with the goal of decreasing the frequency of area code relief. However, in all candor, the solutions are very complex, will take time to achieve, and are expensive.

Overlays

1. I've heard that overlays mean everyone has to dial ten digits for all of their local calls. Is that true? If so, why?

The FCC has required that there be 10-digit dialing between and within area codes in the geographic area covered by an area code overlay. **This means that every local call, even if it's a call to a customer with the same area code as the caller, must be dialed with ten digits.** One state has asked the FCC to waive this requirement and has challenged it in court. However, for now, 10-digit dialing is required by the FCC in an overlay situation.

The FCC's rationale for this is to prevent the deterrence of competition in the overlay area codes as a result of ~~A~~dialing disparity.[@] Local dialing disparity would occur without 10-digit dialing, because all existing telephone users would remain in the old area code, while new users with the overlay code would have to dial ten digits to reach any customers in the old code. Customers would find it less attractive to switch carriers because competing providers, most of which will be new entrants to the market, would have to assign their customers numbers from the new overlay area code. This would require those customers to dial ten digits much more often than an established local telephone company's customers, and would require people calling the competing provider's customers to dial ten digits when they would only have to dial seven digits for most of their other calls.

2. Will I have to change my telephone number if a new area code is added in my location?

Geographic splits require that approximately one half of the people in the exhausted area code change their area code. Overlays do not require any current customers to change their numbers. New customers obtaining service receive numbers in the new code.

3. If an overlay is implemented, could my next door neighbor have a different area code than I have?

Yes. With overlays, new customers receive numbers from the new area code. If, for example, a person moves to your street and obtains telephone service, that person could have a different area code than you have. As the new overlay code becomes more populated, there will be a mix of numbers with the old and new area codes throughout the particular geographic area.

4. If there is an overlay and I dial ten digits to make a local call, will the call be recognized as a long distance call?

No. Local calls and local rates will not change as a result of dialing ten digits for all calls between and within area codes in the geographic area covered by an area code overlay.